

## What is Claimed is:

- [c1] A method of managing a network directory cache, comprising the steps of: receiving and storing a plurality of user queries; creating a query template that generalizes the user queries; and retrieving directory entries answering the query template so that the directory entries can be stored in the cache.
- [c2] The invention of claim 1 wherein the directory entries are retrieved after estimating benefits of storing the directory entries in the cache.
- [c3] The invention of claim 1 wherein the query template is stored and modified as new user queries are received.
- [c4] The invention of claim 1 wherein the network directory cache utilizes the Lightweight Directory Access Protocol.
- [c5] A method of managing a network directory cache comprising the steps of: maintaining a plurality of candidate templates that may be used to retrieve directory entries to store in the cache; receiving and storing a user query; and generating a plurality of new candidate templates that generalize the candidate templates with the user query.
- [c6] The invention of claim 5 wherein the new candidate templates are generated after estimating benefits of storing directory entries in the cache answering the new candidate templates.
- [c7] The invention of claim 5 wherein the network directory cache utilizes the Lightweight Directory Access Protocol.
- [c8] A method of managing a network directory cache, comprising the steps of: maintaining a plurality of candidate templates; estimating a benefit of caching directory results answering the candidate templates; and selecting a candidate template based on its benefit estimate and retrieving directory entries answering the candidate template so that the directory entries can be stored in the cache.

- [c9] The invention of claim 8 wherein the directory entries are retrieved to replace old directory entries in the cache.
- [c10] The invention of claim 8 wherein the directory entries are retrieved only if the estimated benefit is greater than an estimate of benefits of old directory entries in the cache.
- [c11] The invention of claim 10 wherein old directory entries in the cache are replaced incrementally if the the estimated benefit is not greater than an estimate of benefits of old directory entries in the cache.
- [c12] The invention of claim 8 wherein the network directory cache utilizes the Lightweight Directory Access Protocol.